

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1. (currently amended): A ferrule attached to a terminal of an optical fiber, the ferrule comprising:

a main body, formed with a hole into which a core wire of the optical fiber is inserted
a positioning member, monolithically formed with the main body to place the optical fiber in such a position that a clearance is formed between a deepest portion of the hole and a leading end of the core wire, wherein the positioning member continuously surrounds the core wire; and

a leading end portion, monolithically formed with the main body to serve as a convex lens such that light emitted from the core wire of the optical fiber is made to be parallel light, while incident light is focused onto the core wire.

Claim 2. (currently amended): A ferrule attached to a terminal of an optical fiber, the ferrule comprising:

a main body, formed with a hole into which a core wire of the optical fiber is inserted;
a positioning member, monolithically formed with the main body to place the optical fiber in such a position that a clearance is formed between a deepest portion of the hole and a leading end of the core wire, wherein the positioning member continuously surrounds the core wire; and

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a convex lens, integrated with a leading end of the main body such that light emitted from the core wire of the optical fiber is made to be parallel light, while incident light is focused onto the core wire.

Claim 3. (original): The ferrule as set forth in claim 1, wherein at least the leading end portion is comprised of optically transparent resin.

Claim 4. (previously presented): The ferrule as set forth in claim 1, wherein:
the clearance is filled with filler such that the clearance serves as a light guide path.

Claim 5. (original): The ferrule as set forth in claim 4, wherein the filler is comprised of adhesive for fixing the optical fiber in the hole.

Claim 6. (original): The ferrule as set forth in claim 5, wherein a refractive index of the adhesive is selected so as to be greater than a refractive index of a material forming the leading end portion, and so as to have a refractive index difference corresponding to a numerical aperture of the core wire.

Claim 7. (original): The ferrule as set forth in claim 4, wherein the filler is comprised of an optically transparent gel.

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Claim 8. (original): The ferrule as set forth in claim 7, wherein a refractive index of the gel is selected so as to be greater than a refractive index of a material forming the leading end portion, and so as to have a refractive index difference corresponding to a numerical aperture of the core wire.

Claim 9. (original): An optical coupling structure, comprising:
a coupler, formed with a hollow portion in which leading end portions of ferrules each set forth in claim 1 are opposed to each other.

Claim 10. (original): An optical coupling structure, comprising:
a coupler, formed with a hollow portion in which leading end portions of ferrules each set forth in claim 2 are opposed to each other.